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"SPRING, 1963"

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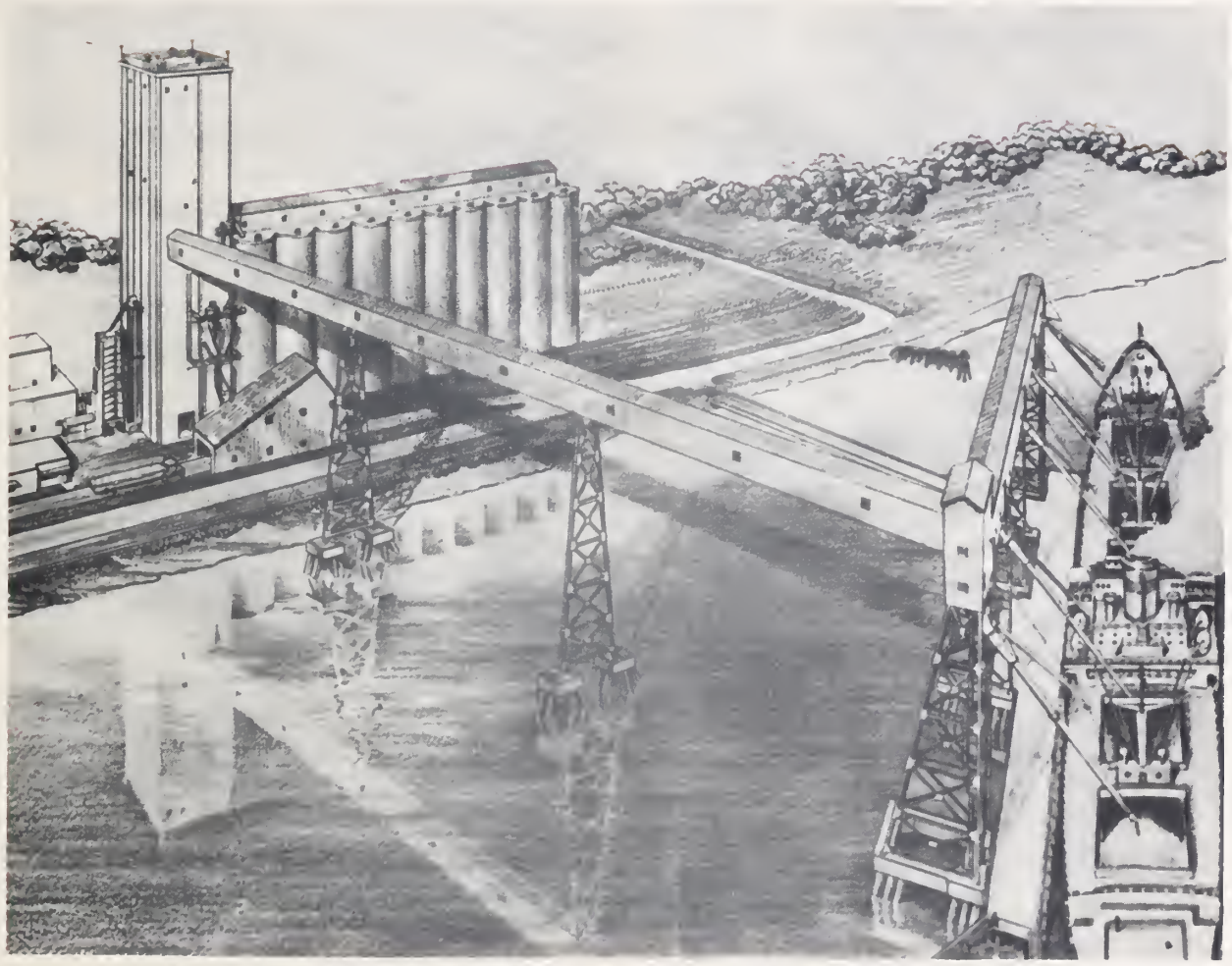
NEW MARKETS ABROAD

by
Jimmy Williams



The above photograph shows a steamer taking on a load of grain at the State Ports Authority Grain and Soybean Storage and Export Facility near Charleston. This modern facility has a total capacity of 640,000 bushels.

The Agrarian staff would like to thank Mr. Tom Warren, Information Director, S. C. Farm Bureau Federation, for the information used in this article.

Sixteen months ago, December 1961, a group of South Carolina farmers met in Columbia. No one realized at that time that out of this meeting would grow an organization of farmers which would be shipping grain and fresh fruits to Europe, and adding more than $2 million to the farmers' income in 1963.

The group of farmers was the board of directors of South Carolina Farm Bureau. The organization they instituted was the S. C. Farm Bureau Marketing Association.

One of the first projects of the newly created farmer controlled Mar-

keting Association was the operation of the state's new $2.8 million grain export facility at Charleston. The Association was able to get the management contract after farmers throughout the state invested $150,000 as initial operating capital for the facility. Farmer investments in the facility now have grown well over $200,000.

A ship called at Charleston early in February and wrote a new page in South Carolina agricultural history and put state farmers in the export business. It loaded some 300,000 bushels of soybeans produced by South Carolina farmers, purchased by South Carolina farmers and sold for export by South Carolina farmers. This shipment also put the Port of Charleston back into the grain export business - a business untouched in over 100 years.

The money farmers invested is now working for them in two ways. First the investment is bringing in a five percent interest, and secondly, by helping operate a farmer-controlled buying station for grain, farmers are receiving a substantially higher price for their crop.

David H. Sloan, Jr., president of both South Carolina Farm Bureau and S. C. Farm Bureau Marketing Association, said recently: "For the first time in history, soybeans are worth more at Charleston, sub-terminal and country points in South Carolina than in Chicago, the world's largest grain market, and prime points in downstate Illinois."

The price paid to producers for soybeans in South Carolina during the harvesting and marketing season this year has reflected as much as 62 cents per bushel over the government support price. Prior to 1962 farmers could expect to receive a price slightly above support levels during this period. Also, state farmers were unable to take advantage of the export market for soybeans without paying a high transportation cost to the nearest export facility - Norfolk, Virginia.

There may be several factors which have contributed to the price structure change for soybeans in South Carolina, but to the largest majority of the producers who have received this increased income, the number one factor is the "Farm Bureau Elevator" in Charleston.

On the state's crop of about 12,000,000 bushels of soybeans, the total gain in farm income will be approximately equal to the total cost of the $2.8 million facility completed last year by the South Carolina State Ports Authority. The Ports Authority had constructed the 640,000 bushel elevator at Charleston under a mandate from the legislature "to provide an export facility for soybeans and other small grains."

Mr. Sloan said the Ports Authority and the state legislature have performed a vital service to state agriculture in building the facility. In addition to higher incomes, S. C. farmers can anticipate planting larger crops of soybeans unless controls are levied by the government.

Although much emphasis has been placed on South Carolina produced grain, the facility can also act as a handler for mid-western grains to be exported. Close behind the first ex-

port of soybeans, another ocean-going freighter called at the terminal to load 2000 tons of soybean meal. This meal was unloaded at the facility from rail cars which came to Charleston from Decatur, Illinois.

This farmer-controlled Marketing Association has not been satisfied with increasing the income of soybean producers. The Association shipped a load of fresh peaches to Europe in 1962 - marking another first in S. C. agricultural circles. That shipment was so successful, the Association has been working with the peach producers of the state in planning volume shipments in 1963.

The Marketing Association is also investigating foreign markets for sweet potatoes, pecans, grape juice and other South Carolina produced commodities.

Just sixteen months ago, no one on Farm Bureau's board of directors ever dreamed that the Marketing Association could mean so much to the state's agricultural economy in so little time.

1963 AGRICULTURAL CALENDAR

April 19	Annual Clemson - Georgia Student Branch ASAE Banquet University of Georgia, Athens, Ga.
20	Block and Bridle Club Little International-Clemson, S.C.
26	Jersey Heifer Sale - Newberry, S. C.
May 4	Southeastern Forestry Conclave - Clemson, S. C.
10	Agricultural Economics Club Faculty-Student Banquet - Clemson, S. C.
25	Holstein Spring Heifer Sale Saluda, S. C.
June 4-7	State FFA Convention - Clemson, S. C.
11-15	Reciprocal Meats Conference Oklahoma State University, Stillwater, Okla.
17-19	American Dairy Science Association Annual Meeting Purdue University, Lafayette, Ind.
24	South Carolina Hereford Field Day
July 9-12	Vo-Ag Teacher's Conference - Clemson, S. C.
22-26	State 4-H Club Week - Clemson, S. C.
Aug. 13	South Carolina Guernsey Fall Sale - Saluda, S. C.
21	South Carolina Holstein Sale - Columbia, S. C.
26-29	Farm and Home Week - Clemson, S. C.
Oct. 21-26	South Carolina State Fair - Columbia, S. C.
Nov. 8	Saluda Guernsey Sale - Saluda, S. C.

TO A FRIEND, TEACHER, AND LEADER

In recent weeks and months, many tributes have been bestowed upon very deserving Professor "Big Ben" Goodale. It can be said without reservation that not one of the tributes paid him was given in cold formality, but all were given with an honest, heartfelt appreciation for what he has meant to the several thousand students he has taught, to the dairy industry he knows and serves so well, to the college community to which he has devoted so much time and effort, to the many professional and honorary groups which know him as an active member and leader, and to the many student organizations he has founded and advised over the years. Is there another who can claim active membership in Phi Eta Sigma, Alpha Zeta, Mu Beta Psi, Blue Key, Tau Kappa Epsilon, American Association for the Advancement of Science, American Dairy Science Association, and American Association of University Professors? After learning of his broad scope of activity and knowledge, it perhaps comes as less of a surprise to find him listed in "American Men of Science," "Who's Who in American Education," and "Who's Who in the South and Southwest." Indeed he has led a full life as a dairy plant operator, dairy manufacturing expert, professor, department head, extension specialist, leader in faculty organizations, consultant to dairies in eight states, leader and adviser of student organizations and activities, including religious and athletic activities, church leader and lay preacher, civic leader, and a decorated soldier.

On this the Twenty-fifth Anniversary of The Agrarian, we the staff proudly salute Professor Goodale, on behalf of all past Agrarian Staffs, for the part he played in founding and advising our publication. We join with clubs such as Alpha Zeta which presented him an official citation for his service, The Student Branch of American Dairy Science Association which presented him the traditional "Guernsey Jug" Dairy Achievement Award, the South Carolina Dairy Association, and the State Dairy Cattle Clubs in paying tribute to a friend, teacher, and leader.

Lacking words to adequately express our sentiments, we add simply and sincerely "Thanks, Prof. Goodale, for being an unforgettable example and inspiration for our own fullest personal development."

SUMMER GRASS FOR THE SOUTH

by

Boyd Graves and Stan Keaton

Grassland farming today is playing an important role in Southern agriculture. Increased per acre yields and reduced acreages of many cultivated crops have resulted in more and more productive land being planted to grass. Favorable climate and soil in the South make the region well suited for grassland farming.

Farmers were surprised when breeding work was begun in 1939 to improve Bermuda grass, because prior to this time Bermuda grass had been considered only a pest which interfered with the production of row crops. Coastal Bermuda grass, a superior Bermuda grass hybrid, was developed as a result of this breeding program. Since its release for commercial production in the early 1940's, over three million acres of this high-yielding grass have been established. Coastal Bermuda grass has become one of the better-adapted summer grasses in the South.

Coastal Bermuda grass is remarkably well adapted to almost all soil types of the southern one-third of the United States. It grows well on the light sandy soils of the Coastal Plain, the heavier soils of the Piedmont, and the silty soils of our river and bottom lands. However, good or moderate drainage is required for growth.

The wide acceptance of Coastal Bermuda grass throughout its area of adaptation may be partially attributed to its multiple uses, which include grazing, hay, silage, pellets, and "greenchop."

Grazing trials have shown the superiority of Coastal Bermuda grass over many other summer grasses in amount of forage produced. When used as a hay crop, it produces high yields of palatable and nutritious forage. Coastal Bermuda grass fertilized with 200-400 pounds of nitrogen per acre usually produces forage with a crude protein content of 15 percent or more and a TDN content as high as 67 percent. Yields of 8-15 tons per acre of hay have been reported on properly fertilized fields.

In addition to being used for grazing and for hay, Coastal Bermuda grass is being utilized more and more as silage. When properly fertilized and managed, yields of 15-20 tons per acre if silage can be obtained. Coastal Bermuda grass silage is an excellent feed for all farm livestock.

Livestock producers in the South have been at a disadvantage in the feeding of pellets, mainly because of high shipping costs in transporting this type feed from others. Data have been obtained which indicate that Coastal Bermuda grass, when pelletized, will retain 15-20 percent protein and acceptable amounts of vitamins, especially vitamins A and D.

With the introduction of Coastal Bermuda grass to Southern grasslands, the revolution to grassland farming was initiated. Coastal Bermuda grass is superior in yields to other summer, permanent-type pasture grasses for grazing, hay, and silage, and its palatibility and nutritive value have proven to be acceptable. The use of Coastal Bermuda grass for summer grazing, along with its other multiple uses, has done much toward promoting livestock production in the South.

RURAL PEOPLE ON THE MOVE

by
Joe McComb

We've broken land and cleared it, but we're tired of where we are.
They say that wild Nebraska is a better place by far.
There's gold in far Wyoming, there's black earth in Ioway.
So pack up the kids and blankets, for we're moving out today.
---Benet

Americans have always been a moving, restless, courageous people. During the Colonial Period, they often packed up and moved to richer land. These were farmers moving to new farm land. At this time nine-tenths of the people of America earned their living on the farms, and this number did not show any appreciable change until after the War Between the States. By 1870, about half of the workers were on farms. Soon the open range began to shrink and the frontier was a thing of the past. By the mid 1890's, although America was still predominately a land of agriculture, the number of farmers was about 42 percent of the nation's workers. With the advent of technology about the turn of the century, a striking change took place in all aspects of America. Its effect upon agriculture was quite significant, particularly in the population shift from rural to urban areas. By 1940 only a little over 18 percent of the nation's workers were farmers.

The trend of the nation is indicative of what was happening in the South.

Let us take a small segment of the South, Orangeburg County, South Carolina, and see how the population has shifted since 1940, why it has shifted, and what effect this shifting has had on agriculture in this area. From this small area, we will get a picture of what is happening in the South.

According to the U. S. Census, the rural farm population was 40,258 in 1940; in 1960, the number had decreased to 20,904. The 1960 labor force for the county was estimated at 25,000 of which 7,000 were engaged in agriculture. Data furnished by the Employment Security Commission indicates a loss of 3,660 agricultural employees during the 1950-1960 decade and a gain of 4,500 in non-agricultural employment. Migration from the county averaged a little over a thousand persons per year in each of the ten years.

In a personal interview, Mr. J. C. King, County Agent of Orangeburg County, said that although the county is predominately a rural county, the number of people engaged in farming is declining rapidly. In 1940 - 1960, the population increased 7 percent; the rural non-farm population increased 161 percent; the urban increased 32 percent; but the rural population decreased 50 percent.

Why have they left the farms? Government programs that curtailed crop acreage caused many workers to leave the farm; on top of that came the war, the expansion of defense and war industries and higher wages. Small farmers have not been able to raise their volume of production to meet the competition of the larger farms; therefore, they have shifted to non-farm employment. Then too, highly mechanized farms need fewer workers.

How does this shift affect agriculture? The trend is toward larger farms with more machinery. Mr. King said that the average farm acreage in Orangeburg County in 1930 was 57.6 acres, whereas it was 133.7 in 1959. During this time the number of farms decreased from 7,329 to 3,415. He stated that 25 percent of the county farmers produce and market about 75 percent of the total volume of agricultural products. He also stated that there is a decided drop in the number of share-cropper and tenant operators. There is a shift from row crop to cover crops, and about one-fifth of the cropland has been put into Conservation Reserve and other government farm programs. Another interesting fact that the County Agent brought out was that there are currently in the County only fifty farm operators under twenty-five years old and 557 who are sixty-five or older.

The farmers no longer try to be self-sufficient; they have turned to specialization; they contract with firms to do jobs such as crop dusting and application of fertilizers. There is an increased interest in cooperative marketing, and an eagerness to try new ideas. The new field design for power farming in some sections of the South is an example.

The picture, then, that we get of the South's agriculture as revealed by the data from Orangeburg County, South Carolina, indicates definite trends. Agriculture in the South is becoming a highly mechanized, competitive and commercial business which will require the best managerial skills, business principles, and scientific practices. Those who have the skills, ambition and energy, can look forward to a successful career in agriculture. With increasing use of capital and management skills, there may be in some cases a strong call to educate the kids and enlarge the farm. None the less, it appears that many more small inefficient farmers must yet say, "So pack up the kids and blankets, for we're moving out today."

OLD CROPS - NEW WAYS

by
Jeff Denit

Picture, if you will, thirty-five acres of beautiful, rolling farmland vividly green in a mature crop of alfalfa. You have hired fifteen capable laborers with scythes to cut the alfalfa for hay. At the day's end, one-hundred and twenty man-hours later, the crop has been cut. Some patches of alfalfa are still standing but you have to allow for low efficiency when dealing with manual labor. At least the crop has been harvested. Tomorrow, the men will return to pitch the hay onto a wagon and haul it to the barn - unless weather interferes.

This illustrates the situation as it was in the South just sixty years ago, but the Agricultural Revolution brought automation to society and the Agricultural Engineer brought mechanization to the farm. Vast research on the part of Agricultural Engineers, in cooperation with other engineering fields, has resulted in phenomenal improvement in farm output, harvesting methods and overall production efficiency.

Farm mechanization could have occurred anywhere in the United States about 1900, but it is particularly significant in the South where even though a farming economy prevailed, mechanization arrived relatively late. At any rate, let's re-analyze our problem and harvest that alfalfa crop using the modern machinery and methods of today's progressive agriculture. Thirty-five acres seems like a great amount of land to harvest properly in one day-and it is! Now, however, in fourteen man-hours, one farmer can mow the field, bale the hay and figure the profits. After all this he is still available for a night with the "boys." That is certainly a vast improvement in labor costs and efficiency!

Certainly, no treatment of the advances in Southern Agriculture is complete without mention of cotton, even if it isn't "King" anymore. Where thousands of laborers once hand-picked the cotton crop a few hundred self-propelled machines now move through the fields and pick ten acres a day per machine - clean.

The dark horizons of farming have receded, but there is still much to be improved upon. Agricultural Engineers are constantly at work to devise new machinery, methods, and better ways to apply them. The South is an integral part of the greatest industrial and agricultural nation in the world; it will continue to be through further research and increased automation on the farm.

TRENDS IN DAIRYLAND, SOUTH

by
Jon M. Rogers

The dairyman of today is a production genius. Let anyone who doubts this statement review these revealing facts. Twenty years ago there were approximately four million dairy farmers, while today there are only about one million. Twelve years ago there were twenty-two million dairy cows, but today there are only seventeen million. The average Dairy Herd Improvement Association herd has grown from twenty-seven to thirty-nine cows in fifteen years, and the average milk production per cow per year has increased more than seventy percent in the past twenty years.

Dairy farmers have accomplished this miracle of production in response to challenges posed by the "cost-price squeeze," the acute "farm labor shortage," and changes following the war years. Faced with these challenges, the dairy farmer immediately set about streamlining and modernizing his entire operation. Today, the dairy farmer with his up-graded herd, modernized milking set-up, bulk tank, and mechanized feeding units is a businessman with a huge investment.

Agricultural leaders in the South have emphasized in the past that the Southeast has almost unlimited possibilities for increasing milk production and sales. We have the advantages of mild winters which permit year-round grazing, and profitable markets created by current deficit supplies of milk products and an increased urban population. Another important point is the current availability of labor due to "under-employment" which has resulted from past over-emphasis on row crop farming.

Within our southern sector there are two classes of dairymen. There is the one with at least forty to sixty high-producing cows, who has sufficient land in good pasture and crop land of high fertility to support these cows. This commercial dairyman can produce high quality milk in sufficient volume to pay for the dairy barn equipment. He is the ideal producer of Grade A milk, with low overhead per cow, and a substantial, regular income from his herd.

On the other hand, there is the group of farmers who have small herds of from one to five cows, and who just do not have the land or capital necessary to become commercial dairy farmers. Without doubt, the widespread use of artificial insemination and the introduction of dependable forage crops can increase the milk production on small farms utilizing dairying as a sideline.

Farm receipts from the sale of dairy products in the South have increased in the past ten years, indicating the growth and growing importance of the dairy industry in the South. With a decrease in the total number of farms reporting milk cows, an increase in the number of dairy farms, and an increase in the average number of cows per dairy farm, indications are that dairying is becoming more widely a full-time operation, rather than a supplementary enterprise.

RESEARCH ON STEM ROT RESISTANCE

by
Ronnie Robbins

The following is a summary of the research paper presented by Horticulture Junior, Ronnie Robbins, at the Regional meeting of the Collegiate Branch of the American Society of Horticultural Science in Memphis, Tennessee, in February. Ronnie will compete in the national contest against other regional winners in the summer. For success in his early research and for winning with his paper, he is to be congratulated.

Stem rot, or fusarium wilt, of the sweet potato is very widespread and is very destructive in many areas. Each year growers suffer decreased stands and decreased yields from stem rot. Sometimes entire fields are completely wiped out.

Unfortunately, the Puerto Rico, one of the most important varieties of the soft-fleshed type sweet potatoes, is very susceptible to stem rot. Varieties showing degrees of resistance have been developed and are gaining acceptance in some areas. However, susceptible varieties are still being used extensively because they exhibit some desirable characteristics which the stem rot resistant varieties do not have. For this reason, some cultural practice to reduce the susceptibility to stem rot would be very desirable.

The experiments reported in this paper were initiated to ascertain the effects of calcium nutrition on stem rot of sweet potatoes and the effect of holding the slips prior to exposure to the disease organism.

The stem-rot susceptible variety Puerto Rico was used. The roots of the slips were trimmed and the slips dipped for fifteen minutes in a suspension containing the stem rot fungus. Immediately after inoculation, the slips were transplanted to a greenhouse bench in rows six inches apart. The temperature of the bench was kept at $85^{\circ} \pm 2^{\circ}$.

To determine the effect of calcium nutrition applied during sprouting, two lots of sweet potatoes were bedded. One lot received a full nutrient solution of a high calcium content along with weekly foliar applications of calcium chloride. The other lot received a minus calcium nutrient solution.

To determine the effect of calcium nutrition applied after transplanting, two replicates of 160 plants each received a minus calcium nutrient solution after transplanting.

To determine the effect of a healing period between the time of pulling the slips and inoculation, one group of 160 slips was pulled and the roots trimmed 96 hours prior to inoculation. A second group of 160 slips was pulled and the roots trimmed 48 hours prior to inoculation. A third group of 160 slips was pulled and the roots trimmed 24 hours prior to inoculation. A fourth and final group of 160 slips was pulled and the roots trimmed 6 hours prior to inoculation. During the period between the time the slips were pulled and the time of inoculation, the slips were kept at 85° F $\pm$ 2°, and under humid conditions.

In this experiment, those plants which were held at 85° F $\pm$ 2° and high relative humidity for 24 hours between pulling and inoculation showed much more resistance to stem rot than did those plants which were inoculated 6 hours after pulling. The plants which were held for 48 and 96 hours exhibited about the same amount of resistance as did those which were held for 24 hours. Thus, it is concluded that suberization of the sweet potato plants in this experiment occurred within 24 hours.

Following are the conclusions drawn from this experiment:

(1) The results on calcium nutrition were inconclusive because of a burning and stunting effect caused by the high concentration of calcium chloride applied as a foliar spray.

(2) Slips which received either a 24, 48, or 96 hour healing period at 85°F and high relative humidity between the time they were pulled and the time they were inoculated showed much more resistance to stem rot than did those slips which were inoculated 6 hours after pulling.

(3) Apparently 24 hours only was necessary for this beneficial effect. And since this beneficial effect occurred within 24 hours, it is assumed that suberization rather than periderm formation was responsible.

GRADED FEEDER CATTLE SALES

by
George Dorn

Within the last decade, many changes have taken place in Southern agriculture. One relatively new addition to the livestock industry has been feeder cattle sales. These sales are growing in magnitude in South Carolina, and are greatly benefitting the state's cattle producers.

First and foremost they supply a good market for feeder cattle; secondly, they insure that only the better quality animals will be sold. To begin with, only steers and heifers of the beef breeds may be sold. Prior to the sale, these cattle are field inspected by a county committee. Every male animal must be castrated and completely healed before this animal can be sold. All must be dehorned before being approved by the committee. The producer must show evidence that all cattle sold have been vaccinated for blackled, malignant edema, and hemorrhagic septicemia within a specified time limit. The cattle sold should weigh at least 300 pounds, and must grade "medium" or higher. All heifers must be guaranteed open and must have been calfhood vaccinated for brucellosis.

These are just a few reasons why only higher quality cattle are consigned to these sales.

Fifty percent of all the cattle sold in these sales remain in South Carolina, providing the housewife with the high quality beef which she desires.

There are five feeder cattle sales held annually in South Carolina each fall. These are held in Bennettsville, Greenwood, Spartanburg, York, and Ehrhardt.

In 1962, a total of 4,344 head were sold in the five sales. These constituted cattle produced by 240 producers from 31 counties.

Of the total number of cattle sold, 3,038 were steers. They weighed an average of 492 pounds and brought an average selling price of 25.64 cents per pound. The heifers sold for an average of almost 2.5 cents less per pound than did the steers.

The greatest percentage of steers graded "good." while most of the heifers graded "medium."

Yes, feeder cattle sales are a growing part of South Carolina's livestock industry, and each year they prove their value by the number and quality of cattle sold through them. Last year, the gross income from the five fall sales amounted to slightly over $500,000.00.

A NEW FERTILIZER

by
James H. Crawford

Sweet potatoes have been grown in the Southern and Eastern states for more than a hundred years, but not until the last fifteen years has any particular emphasis been placed on the production of a sweet potato that has high quality. Considerable work has been done in breeding potatoes that have a high yield, disease resistance, good color and cooking characteristics, and storage qualities.

In December 1962, the Crop Reporting Service for South Carolina estimated annual sweet potato acreage during the period 1951-1960 was 19,400 acres. The acreage in 1961 was 8 thousand acres harvested, and in 1962, 9 thousand acres. The average yield of sweet potatoes during the 1951-1960 period was 98 bushels per acre. In 1961 the yield was 111.5 bushels per acre, and in 1962, 121.2 bushels per acre. The value of the crop in 1961 was $2,125,000, and in 1962, $2,552,000.

CaroGold, a new sweet potato variety, which was released by the South Carolina Experimental Station in 1958, has very good characteristics except poor sprouting habit. The need for development of a treatment that would increase sprout production and yield of the CaroGold prompted this study. Previous experiments with sweet potatoes and other crops indicated humic acid fractions would increase plant growth and yield.

A propagating media consisting of half creek sand and half loamy soil was used in the bed. The media was mixed thoroughly and three treatments were prepared for the quadruplicate plots as follows: (1) Check, (2) one, and (3) two grams of humate per pound of media. The sweet potato roots, which were composed of comparable lots of 20 roots each, were treated by soaking in a solution of water containing 10 percent humate. Duration treatments for time of soaking were: check, 30, 60, and 90 minutes. After soaking, each lot of roots was bedded in each of the media treatments.

Plants from the treatments were pulled five times, counted, weighed and planted in a field experiment. The treatments in the field consisted of a check; 400 and 800 pounds per acre of a 12-9-6 inorganic fertilizer; and 400 and 800 pounds per acre of a 12-9-6 humate.

There was a significant increase in number of sprouts with the media treatments. The soaking of the roots decreased sprout production although sprouts were produced 10 days earlier when compared to other treatments. The yield of number one grade potatoes was significantly increased by the soaking of the roots in the 10 percent humate solution. Results of the media treatment show a significant increase in yield of number two grade of sweet potatoes. Interaction of the media and soaking treatments resulted in a significant increase in yield of the number two grade.

The field experiment resulted in a significant increase in yield of all grades of potatoes except the jumbo grade.

THE CHANGING PEACH INDUSTRY

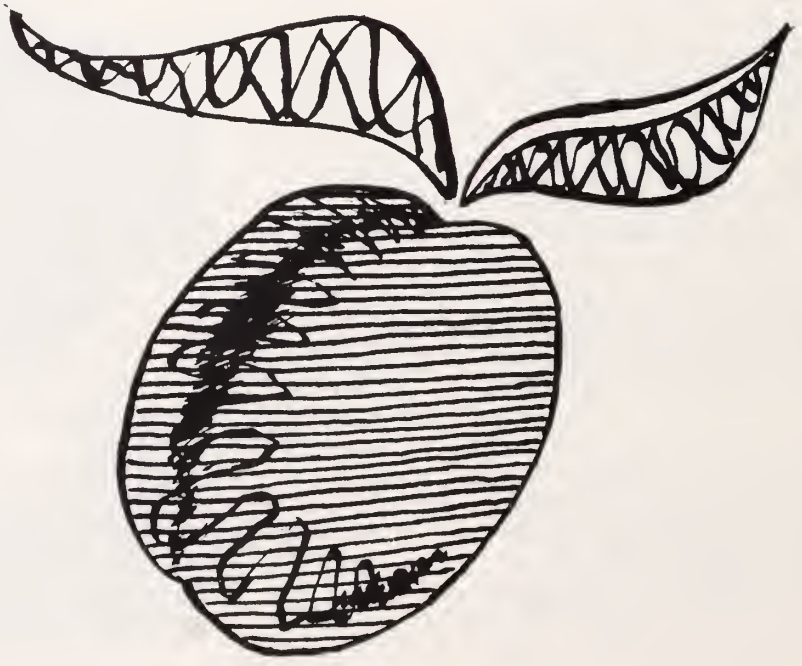
by
Lem Dillard

In the production of peaches, as in most other industries, there have been many changes in the past 25 years which have greatly affected the industry.

It is the opinion of most peach producers that the industry was more prosperous 25 years ago than it is today. The grower then only had to worry about whether or not the weather would permit him to have a peach crop. In those days there were primarily two or three varieties that were grown -- Elberta, Golden Jubilee, and Georgia Belle. Each of these ripened at a different time and there was always a good market for peaches. Increasing production costs and stagnant market prices are requiring more and more efficiency for success today.

Peaches themselves have undergone a revolution in the last 25 years. Since the time of the three-variety peach industry, many new varieties have been introduced and sold to the orchardist as "the peach of tomorrow." Many of these new, "fabulous varieties" have failed in their desirable characteristics and been discarded after only a few years. Some have developed as advertised and improved the quality and appeal of peaches, but while these successful varieties have helped, others of poor quality have created a bad taste in the mind of the consumer. It is true with peaches as it is with most other things that one always remembers the bad longer than he remembers the good. The poor varieties have hurt the market for high quality peaches because of their poor consumer impression.

The methods of growing peaches have changed with the introduction of new methods of cultivation, fertilization, and pest control. Irrigation has helped growers produce larger and better quality peaches, especially



during dry weather. The main help that the orchardist has received has been along the lines of controlling peach pests. Research has developed new insecticides which now control the peach tree borer and fruit moth to a greater degree, making the orchardist's work much easier. Clemson College's departments have done excellent work in South Carolina along this line.

There have been so many changes in the methods of packing peaches for shipment that it is hard for the grower himself to keep up with them. Some of the better changes have aided in getting the peaches to market without serious bruises or brown rot damage. One of the first changes from strictly hand packing was the "defuzzer" which brushes the fuzz off the peaches. About the same time, a new machine was developed which sized the peaches automatically, These techniques speeded up the process of packing peaches and added to consumer appeal. Now, varying sizes of containers are used to cater to the desires of all consumers--another consumer appeal.

One of the better developments has been the introduction of hydrocooling, in which packed peaches are cooled to a temperature of near 40° in a shower of cold, clear water just before they are loaded for shipment. Cooling helps to reduce brown rot while the peaches are enroute to market. The old defuzzer is now being replaced by a machine which washes and brushes the fuzz off the peaches. A hot water bath for a few seconds prior to washing may help eliminate brown rot in the future by destroying many of the causative spores.

The methods of shipping peaches to the market has also changed. The trucking industry waged economic battle with the railroad during the last twenty-five years to become the primary method of peach shipping. Recently though, the railroads introduced a combination of shipping methods-hauling truck loads of peaches on boxcars, "piggy-back" style. The truckers have already begun to fight this by increasing their capacity with double decker trailers.

Until very recently all peaches grown in the United States have been marketed in the United States and Canada. However, last year experiments proved that exportation of peaches was possible. Some growers plan to ship large quantities over-seas for marketing this year. If this proves profitable it could prove to be a real boost to the peach industry.

Though many valuable gains have been made in the past twenty-five years, the peach industry will need to make many adjustments if it is to survive as a prosperous industry. If lack of demand becomes a serious problem, it will be because growers continue to market poor quality and undersize peaches, in turn, decreasing the market for the better peaches. Growers must realize the need of a marketing agreement to include the quality and size of peaches that may be shipped. An agreement of this sort would greatly augment the demand, and cause all growers to produce larger and better quality fruit. Until this happens the old Elberta may remain as the most valuable and dependable peach - as it has been for the last two or three years.

FROM THE FOREST _____

by
Jimmy Potts

Forestry continues to expand rapidly in the South because of new techniques and industries made possible by research. These industries have helped make possible the rapid industrialization of the South which has occurred in the past 50 years. During these 50 years, many improvements have been made in Southern forest industries.

Today, many of the Southern pulp mills are installing equipment to economically extract chemical compounds from many of their waste materials. Thus far, some 2,600 organic chemical compounds have been processed from trees and scientists believe that they have only "scratched the surface."

Today, small sawmills are able to compete with large mills by installing log debarkers and chippers. With these new additions, the small sawmills can chip most of their waste materials, such as slabs and edging, and sell them to pulp mills. New and better uses for lumber have been found, which add to the utility of lumber. New processes for treating lumber exposed to weather have added many years to its life. Laminated wood arches are replacing steel where high strength and beauty are required.

Particle board is a new product made from industrial wood residues. The wood residues are ground into fine particles, mixed with glue, and forced into a sheet by a hot press. The board has been widely accepted by the furniture industry.

Southern Pine plywood is not new, but many problems which have made this plywood uneconomical to produce have been incurred in its manufacture. At the present time, many of these problems have been solved and the South is looking forward to its perfection.

The mechanical dinosaur is a pulpwood harvester which de-limbs trees up to a height of 60 feet, tops the trees, shears the stem at ground level, and lays the logs on a pile. The whole operation can be accomplished on a single tree in a mere 45 seconds. It was designed for clear-cutting operations on level terrain, and its application extends from the South to the Lake States.

Silvicides are chemicals which help the silviculturist kill unwanted species of woody plants. One of the most promising chemicals is a methyl-urea compound called Fenuron. It can be purchased in pellet form and is applied by broadcasting around the base of unwanted trees. It is thought to be selective in its killing power.

Genetic studies are pointing the way toward better Southern forests. Since 1956, the South has established 2,400 acres of seed orchards using extensive genetic knowledge. These orchards contain trees that have been carefully selected because of tree vigor, resistance to disease, superior wood properties, and small limb size.

Airplanes are being used to drop water and fire-retardant chemicals for forest fire control. Also, a radio-controlled guided missile is being developed for the United States Forest Service. It will carry a pay load of 100 gallons of fire-retardant chemicals for forest fires in inaccessible terrain.

Television cameras mounted on fire towers are being tested as a possible means of detecting forest fires. If this proves satisfactory, fire towers may be unmanned in the future. Television is also being used in some industries to instantly spot trouble along the assembly lines. The whole plant can be placed under the watchful eye of one man by putting a series of cameras throughout the plant.

Aerial photographs are being used to aid forest management. They are also used, to a limited extent, in timber cruising and will be more valuable as the techniques of measuring volumes are perfected.

Computers are being used to reduce and help analyze data.

Forests not only produce wood, but are also used to produce wildlife, to conserve water, and to provide recreation. Many of the large owners, and some of the smaller ones, have realized this and are now managing for multi-use forestry.

The development of Southern forests in the past 50 years has been little short of spectacular. With new and wider uses of forest products, it seems that many more Southern acres will shed their eroded appearance for the fresh greenness of new forests.

SOUTHERN POULTRY BOOMS

by
Maurice Gregory

As time passes, the type of farming in any particular region is likely to change. This change may be brought about by technological changes or changes in soil condition. The South has been the longtime victim of soil depletion and soil erosion. Because of these conditions there was a need for a change in the type of farming in the South.

Besides the conditions brought about by nature and man's neglect, there have been other reasons for a different type of farming. Some of these were the decline in acreage allotments for cotton and tobacco and the competition from other sections of the country for these crops.

All of these conditions combined to cause a need to change the type of farming, but to what? Most of the farms in the South were small, so the farmer was looking for something that would require only a small amount of land and capital, and still bring in sufficient returns on his small farm to support his family. In many cases the answer was chickens.

The conditions mentioned, plus low labor costs, low housing costs, and low fuel costs were very favorable to the poultry industry in the South. Because of all these favorable conditions, the South has increased the production of poultry products at a more rapid rate than the rest of the nation. The South has increased its production of broilers, for example, to a point that it produces about 65 percent of the nation's total, as compared to 35 percent 20 years ago.

The poultry industry has made such large gains in South Carolina that it is now rated third in percent income to the farmer. Eggs are now the most important animal product in the state in terms of gross farm income. The cash receipts from the poultry industry in the United States amounted to approximately 3.1 billion dollars in 1961.

The contributions to agriculture have not only been financial. The poultry industry has contributed greatly to the fields of medical research, nutrition, genetics, and artificial insemination. It has also helped the feed industry climb to the 13th largest business in the United States.

Other industries that have benefited from the increase in poultry production have been the makers of automatic equipment for poultry houses. Also the producers of medical supplies and antibiotics have benefited from the rapid increase that the poultry industry has made.

Today the poultry industry is continuing in its tremendous gains, and it is affecting more and more people by giving them a new product to produce on poor land.

NEEDED: VOCATIONAL EDUCATION

by
Thomas V. Nolan

It has been possible in past years for relatively uneducated and unskilled Americans to obtain employment, and whether the financial returns were great or small, all have been able to earn a livelihood. However, we are now finding that vocational education is taking an increasingly more important place in labor force preparation.

Of these vocational fields, probably the most important is Agriculture. On the average, about 25% of the provider's paycheck goes for food for himself or his family. This is a considerably lower figure than that of a few years ago, and the increased values in foods and other agricultural products today, accompanied by their price drops, is greatly attributable to Vocational Agricultural Education.

Wolfbein (1) has pointed out that vocational training in fields other than Agriculture must be made meaningful, especially for those past their formal periods of education. Greater demands by industry for unemployed agricultural labor will require more and more vocational training for them to succeed in their new vocations.

An accelerating technology brings with it obsolescence of skills. It is no longer possible for a person to train for, enter, and then stay until retirement in one specific occupational field without further enlightening preparation along the way to keep him well informed of the technological advances and other changes which have been made.

Vocational education is facing a fabulous future which promises an unprecedented expansion and development for all of its programs and services. With every hour of time our population increases by approximately 327 persons, each one a potential candidate for the labor force. This means that this same number of "extra" people must be clothed, fed, housed, educated, and in other ways, served and provided. These persons will have no choice but to work in the occupation which society has designated as imperative toward maintaining our way of life. About 85 percent of this group will find work within the framework of vocational education--agriculture, business, distribution, trade, industry, and technology.

We have become quite sophisticated about the educational levels of all members of our labor force. We take pride in the fact that our national educational development is growing each year. But people must be taught to work, because work is basic to our culture (2). This is probably more true of Vocational Agriculture, than of many other fields.

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1. Wolfbein, Seymour L. Training Available People for Available Jobs, American Vocational Journal, p. 6, October, 1962.

2. Barlow, Melvin L. Vocational Education in the Fabulous Future, American Vocational Journal, p. 9, October, 1962.

25 AGRARIAN YEARS

by
Jim Hite

The Agrarian is twenty-five years old this year! It must seem like a short time to those professors and students who undertook to present that first issue back in 1938, yet much has happened in the South since then. No longer is our region the land of slow, rural life; it has become a region bursting with vitality and obsessed with joining the mainstream of American economic and social progress. Gone from the southern farm is the mule and the sharecropper and in their place are self-propelling herbicide applicators and college-educated farmers. They have been a stormy twenty-five years for the South, and for The Agrarian; but, all in all, they have been years of growth and maturity.

Before The Agrarian hit the campus at Clemson, the agricultural students had periodically published an Agricultural Journal. Dr. G. H. Aull, now Head of the College's Department of Agricultural Economics and Rural Sociology, was a member of the staff of that publication. But the Journal fell into decline, as college publications often can, and when an Agricultural School magazine was revised, it was named The Agrarian. In 1938, the educated people of the South were still freshly aware of the arguments of the "Agrarian" writers from Vanderbilt -- John Crowe Ransome, Allan Tate, Andrew Lytle, Robert Penn Warren, Donald Davidison, Frank Ousley --- and quite probably the influence of their work had much to do with the name given the new publication. But the "Agrarian" poets were opposed to change in the South; Clemson's Agrarian has never opposed change per se. Rather, The Agrarian has been dedicated to agricultural progress. In common, however, with the "Agrarian" poets is the magazine's central thesis: that the strength of the South lies in her rural people and her rural institutions.

The Agrarian's first editor, Harris L. Beach, now teacher of Vocational Agriculture at St. George, South Carolina, worked closely with two men, who, by all odds, can properly be called the co-founders of The Agrarian, Dr. B. O. Williams, formerly of the Rural Sociology staff, and Professor Ben E. Goodale, Head Emeritus of Dairy Science. Professor Goodale has just retired from the active staff at Clemson as The Agrarian enters this twenty-fifth year, and perhaps more than any other man, he represents the history of the magazine. As a Dairyman, "Prof" Goodale has contributed very greatly to the rapid growth of the South's dairy industry, thus bringing thousands of additional dollars to Southern rural people. As a church leader and lay preacher, he has enfused in the Clemson Community, and in the hundreds of students who have known him, a spiritual quality that points toward values realized only by dedicated service, personal excellence, and human brotherhood - values without which the South and The Agrarian would become no longer worthy of effort. Professor Goodale has remained at Clemson throughout the entire quarter century, and because he has, The Agrarian has been a richer and more inspired publication.

B. E. Goodale, co-founder, speaks:

In the spring of 1938 plans were made to publish the first issue of The Agrarian. Harris L. Beach was the first editor and the faculty advisers were W. H. Washington, B. O. Williams, and B. E. Goodale.

The Agrarian has served the School of Agriculture well over the years. Student Agricultural Clubs and a small group of dedicated agricultural students have nursed The Agrarian through some difficult years. In more recent years agricultural organizations in South Carolina have assisted student staffs by financing some of the issues.

We still have The Agrarian after twenty-five years because each year a few agricultural students are willing to do the necessary work with no reward other than the satisfaction of serving and creating.

The new 1963-1964 Agrarian staff will learn the hard way that much creative imagination is a must and there will be many hours on each issue of careful, painstaking, routine effort. The task is further complicated by the fact that the staff members have had no courses in journalism and only a very small number have had any experience with a publication like The Agrarian.

The success of any publication depends on the thorough organization and whole-hearted working together of its staff members. We are indebted to the faithful few who have worked so hard to give us The Agrarian over the years, and also to those who have helped with the finances. The Agrarian

has been truly given over the years to agriculturists and friends of agriculture. No charge has ever been made for any issue.

To be a member of the staff of The Agrarian is a valuable experience, and those whose good fortune it is to share it are better fitted and better trained as a result. Past editors never tire of recounting their common difficulties, their personal contacts, and the fraternal spirit derived from working on a publication created to adequately interest and serve their fellow agricultural students.

The next twenty-five years will be challenging for The Agrarian. There will be no place at Clemson College for a weak agricultural publication for students. The Agrarian's future is as promising as dedicated staffs of future years wish to make it.

Harris L. Beach, first editor, speaks:

It gives me great pleasure to write a short article for The Agrarian on its twenty-fifth anniversary. It seems like only yesterday when we began the initial organization of the magazine. However, many commendable editions have come off the press since its beginning.

I would like to give credit to the late Dr. E. W. Sikes, President of Clemson College; Professor B. E. Goodale, Dean W. H. Washington, and Dr. B. O. Williams for their untiring efforts in the early organization and production of The Agrarian. Without their counseling and guidance I sincerely believe that the magazine would have been short-lived. I would like to pay tribute to the first staff for each of them did their part in making The Agrarian a worthwhile magazine, as have the staffs that have followed.

But where does The Agrarian go from here? What about the next quarter century? Certainly, the time ahead is as full of challenges as the road just traveled. And The Agrarian must be ready to face these challenges, and to help rural leaders to face them. Clemson is a busy school; academics press hard on our students and the time for journalistic endeavor must be jealously guarded. It costs money to publish this magazine, and The Agrarian has no source of income except the generousity of commercial firms and alumni; yet money must be found. Why? Because the South is getting in sight of its goal - economic prosperity, political equality, human brotherhood - and we can ill afford to falter. The Agrarian must fight for improvement in the quality of rural education; for rural industrialization; for rural zoning, community development, the enrichment of the rural church; it must continue to disseminate information about breakthroughs in the production of farm products, for better uses of our land and forests, and for water conservation. And The Agrarian will do this. Because Clemson has felt the hand of men like G. H. Aull, Ben Goodale, R. F. Poole, and B. O. Williams, we can do no less.

BETWEEN THE FURROWS

PRE-VET CLUB

Since this is the first article to appear in The Agrarian by the Pre-Veterinary Medicine Club, it will cover the club's general organization as well as past, present, and proposed activities.

The Pre-Vet Club is presently composed of thirty-one members who are enrolled in Pre-Veterinary Medicine or following the general Pre-Vet curriculum.

Under the supervision of President Jack Wheeler and the guidance of Dr. W. C. Godley of the Animal Husbandry Department, the club has enjoyed a most productive and enlightening first year.

The club's first activities were of the guest speaker variety, featuring local and district veterinarians. A more recent meeting spot-lighted two students from The University of Georgia, where many of the Pre-Vet students will be seeking enterance upon completion of their work at Clemson. Club plans for the immediate future include election of officers for the coming year and a banquet on May 7, 1963. Dean Jones, Head of the Veterinary School of the University of Georgia will be the honored guest and principal speaker at the banquet.

FFA AWARDS AND ELECTIONS

On March 15, 1963, the Clemson Collegiate Chapter of the Future Farmers of America held its annual awards banquet at Dan's Dining Room. Mr. L. L. Lewis, state executive secretary of the South Carolina Association of Future Farmers of America, was guest speaker. The banquet was attended by the chapter members and the faculty of the Department of Agricultural Education.

Awards were presented to outstanding students in Agricultural Education. Those presented awards were: Benjie Rhoad, Senior; Gordon Chipukites, Junior; Byard Stone, Sophomore; and Stewart Garret, Freshman.

The Clemson Collegiate Chapter of the Future Farmers of America held its annual officer election meeting Tuesday, March 5, 1963 and the following men were chosen to represent the club in these capacities during the 1963-1964 school year; President, James R. Ballington, Lexington, S. C.; First Vice President, Gordon D. Chipukites, Milan, Ohio; Second Vice President, Byard Stone, Johnsonville, S.C.; and Secretary, Stewart H. Garrett, Fountain Inn, S. C. Also elected were: Treasurer, Luther W. Waters, Batesburg, S. C.; Reporter, Thomas V. Nolan, Marion, S. C.; and Sentinel, William C. Gunnells, Olar, S. C. Stewart H. Garrett is an Industrial Management major, while the other officers are Agricultural Education majors.

Advisors for the year are Mr. F. E. Kirkley, well-known by agriculturists throughout several states, and Dr. A. K. Jensen, a very friendly recent arrival from Wisconsin State College in Plattville, Wisconsin. Both men are members of the Agricultural Education staff.

ALPHA ZETA WINS REGIONAL AWARD

The South Carolina Chapter of Alpha Zeta held the second semester initiation March 18 at 7 P. M. at the P & A Building auditorium. For outstanding contributions to agriculture in the Southeast, agricultural leadership, and promotion of youth work, Mr. R. H. Garrison, Head, Department of Seed Certification and Dr. W. C. Godley, Professor of Animal Husbandry, were initiated into the fraternity as associate members.

For outstanding scholarship, leadership, and character, the following students were initiated into Alpha Zeta: John M. Bolinger, Pre - Vet; Loren J. Brogden, Horticulture; Maurice E. Feree, Horticulture; J. Thomas Garrett, Horticulture; Francis J. Hanks, Ag. Engineering; Douglas M. Heath, Forestry; Shuler H. Houck, Jr., Dairy Science; Geary C. Jolley, Ag. Education; Lloyd M. Kapp, Dairy Science; Bobby L. Lanford, Forestry; James B. Potts, Jr., Forestry; David B. Rhoad, Ag. Education; Joe F. Shealey, Forestry; Ernest E. Shealey, Biology; Paul L. Stroman, Ag. Engineering; Clarence J. Wheeler, Jr., Pre-Vet.; and James C. Williams, Jr., Dairy Science.

The South Carolina Chapter of Alpha Zeta held its annual Alumni-Student Banquet March 26 at the B&L Cafeteria in Anderson. Dr. H. H. Macaulay, Dean of the Clemson College Graduate School, spoke on "The Aims of Education."

The new officers for the coming year were announced and are as follows; Joe Barnett, Chancellor; Jimmy Palmer, Censor; Bobby Lanford, Scribe; Jimmy Williams, Treasurer; and Jimmy Carter, Chronicler.

The advisory committee for Alpha Zeta will be headed by Dr. W. A. Shain of the Department of Forestry. Other members will be Dr. L. D. Malphrus of the Department of Agricultural Economics, and Mr. B. D. Cloaninger, Head of the Department of Fertilizer Inspection and Analysis.

Receiving top chapter award and a beautiful plaque at the Regional Conclave of Alpha Zeta at the University of Georgia, April 5-6, has climaxed the most successful year in recent history of the South Carolina Chapter. Past chancellor Boling expressed praise for each member, officer, and especially Dr. T. L. Senn and the Faculty Advisory Board for the part each played in the chapter's activity record which placed it above six other competing chapters.

BLOCK AND BRIDLE CLUB ACTIVITIES

The Clemson College Block and Bridle Club held its annual spring barbecue at the Orange-White Intrasquad Football Game, April 6. The barbecue will be served in the Little Gym from 12:00 noon until 2:00 p. m. The menu will consist of hickory smoked barbecue, rice, slaw, pickles, rolls, tea and coffee.

The purpose of the Block & Bridle Club barbecue is to finance trips for judging team members to participate in intercollegiate livestock and meat judging contests. Each year the livestock judging team participates in events in Memphis, Atlanta and Chicago, while the meats judging team enters competition in Baltimore and Chicago.

The Block & Bridle Club held its annual Little International Livestock Judging and Showmanship Contests April 20 near the P & A Building. Future Farmers and 4-H Club members throughout South Carolina participated in the event.

AG ECON CLUB NEWS

The Agricultural Economics Publications Committee has prepared and published the second annual edition of the Ag. Ec Ledger. The Ledger is designed primarily to interest prospective students, both undergraduate and graduates in the opportunities in the expanding fields of agricultural business. Copies have been sent to high schools and Agricultural Economics Departments in the land-grant colleges.

On May 10, the Club held its annual Banquet, with Dr. Max Chapman, President of Lees - MacRae College and an alumnus of Clemson as speaker. At the Banquet it was announced that Vic Bethea, a rising senior from Latta, had been elected president of the Ag Ec Club for the 1963-64 school year. Bethea will also represent the Club in the national student public speaking contest of the American Farm Economic Association at its annual meeting in St. Paul in late August.

DAIRY CLUB

Dairy Club Honors Prof. Goodale

The tribute paid to Prof. Goodale on his recent retirement is perhaps the biggest news from the Dairy Club. At the January meeting he was presented an award in appreciation for his forty years of service to the Clemson Dairy Club. He was the founder and first advisor to the club in the 1920's. The award was the traditional silver "Golden Guernsey Jug." Professor Goodale, completely surprised by the award, was very appreciative.

Also at our January meeting, officers were elected for 1963. Elected were: President--Larry Gause; Vice President--Jon Rogers; and Secretary-Treasurer--Jimmy Williams.

The Clemson Club is very proud to have had two of its members elected to office in the Southern Section of the American Dairy Science Association. At the annual meeting in Memphis, Tennessee, Jon Rogers was elected to serve as President, and Joe Barnett as Second Vice President.

The Dairy Club would like to extend its welcome to Dr. Martin Chalupa who has just joined the staff in the positions of Assistant Dairy Scientist and Assistant Professor of Dairy Science. Dr. Chalupa comes to Clemson from Rutgers University. We are sure he will be a big asset to our department and to the entire college.

AND NOW WHERE?

Editor's Note: Inspection of The Agrarian's past and its future would be incomplete without a look at some shortcomings and possible cures for them. Jere Brittain, a recent past editor of The Agrarian presented the following view points at a meeting of the Student Agricultural Council in February 1963.

An opinion is defined as a belief, stronger than impression, but less strong than positive knowledge. Now in such a sophisticated and scientific age as we fancy ours to be, there is but modicum of positive knowledge. Or, in the vernacular, there's little we know for sure. It may be this is characteristic of an age which could be referred to as Scientific Adolescence.

It is primarily within the present century that we have discovered that knowledge, or science if you choose, possesses a high order of utility. Knowledge in agriculture, for instance, has been plowed generously into our fields, and today we reap harvests of "The Good Life" in the form of warm backs and full bellies. We should scarcely be surprised, in the light of this, to look about ourselves and find that we have accultured and institutionalized science and have in a very real sense become worshippers after her. This Goddess, Knowledge, with her Chief Priest, Technology, seems to be the dominant spirit of our campus, which, I must add, is not unique among land grant colleges of my acquaintance.

Creative Expression..... let us dwell for a time upon this. It is a poorly veiled secret that agricultural students are considered by some elements of this community to be peasants of the literary caste. Perhaps our performance in certain academic areas such as literature has earned us this reputation. But regardless of its derivation, I deeply resent this attitude. And we have at our command the means to rectify it.

For 25 years, with brief interruptions, The Agrarian has voiced the news and opinions of Clemson's student agriculturists. It was once as traditional on Campus as The Tiger. Yet today, perhaps when most urgently needed, our voice has become rather muffled by disinterest.

What are the excuses people give today for their unwillingness to write? These were some which were in circulation a couple of years ago.

"I can't think of a thing to write about."

Anyone with a farm background who takes refuge behind this claim deceives himself. Is anyone nearer to the soul of poetry and philosophy than a boy who sits astride a board fence, watching cows graze a rain refreshened pasture? To have caught a 'possum in the act of chicken thievery is to learn a profound lesson about the struggle for survival. How does impending agricultural legislation effect the folks back in Hampton County?

What is to become of the tenants on the home farm in the face of mechanized and chemical farming? Can you afford to keep them? Or can you get along without them? What can be done to improve the educational effort of The School of Agriculture? You have seen Agricultural Education and Extension at work; What have they done for your farming operation and for South Carolina? Could they do more? Where do Clemson's research funds come from? For what are they spent? Have you seen the current list of Experiment Station Research Projects? What projects would you add to the list? Who is this Professor who teaches you every Tuesday and Thursday at 9? Where'd he go to school? Where was he reared? Does he have a family? Why is he in agriculture anyway?

There's no stopping point, is there?

Another excuse for writer's cramp has been, "I'd 'sorta' be afraid to say what I really think about some of these agricultural questions. It might not do me any good with some of my Prof's."

This argument betrays ignorance of a fundamental ingredient of the democratic process. Since, outside of religious traditions and totalitarian states, no educated person is so bold as to lay claim to ultimate truth, we must exist intellectually in a state of dynamic equilibrium. It is through argument, discussion, re-examination of facts and compromise that logical judgements are derived. In a word, we as "educated agriculturists" are debtors to our fellow man. We owe him our opinion.

"But we simply can't afford much of an Agrarian."

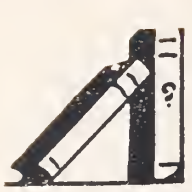
This argument is quite invalid due to the large number of possible sources of money: advertizing, club contributions, student activity funds, assessment of each ag student, alumni contributions, subscription sales, and industrial contributions.

In summary of this point, we are strongly convinced that the limiting factor in support of The Agrarian is enthusiasm - not money.

We suggest a permanent home, well appointed with agricultural classics, droning with typewriters and conversation and smelling of ink and hot coffee. I do not believe the publication will flourish until it again becomes a journalistic fraternity comprised of Agricultural men who share a taste for the communicative arts.

The Agrarian should be published more frequently than twice yearly. A flaming desire to write may flicker and go out during long interims. Furthermore it is difficult, if not impossible, to maintain the interest of a reading audience over such periods. Perhaps a weekly news supplement with bi-monthly feature publications would be attainable.

The Clemson Degree is a credential which is recognized in every by-way of professional agriculture. Let it be our responsibility to continuously upgrade this credential through the proper discharge of our journalistic responsibility. Let us read omnivorously, think with penetration and scope, and arrive at well considered opinions. Then from pen and platform, let us speak!



AGRARIAN PHILOSOPHY

By

The Editor

According to popular concept, the Southeast is only now kicking over the traces of a "one-crop" agricultural system and beginning to develop industrially. In truth, some industrialization was begun in the South in the early 1800's and numbers of animals for agriculture were greater prior to 1860 than since. Unfortunately "King Cotton" did cause many to hold in disdain the possibility and practicality of widespread industry and diversified agriculture, however. That era is perhaps most vividly described by Henry W. Grady, famous Southern orator, in reporting a funeral he attended in his home state of Georgia. He says that the deceased, poor and pitifully dressed, was buried in the midst of a marble quarry, and yet his tombstone was from Vermont. They buried him in the heart of a pine forest, and yet the pine coffin was imported from Cincinnati. They buried him within touch of an iron mine, but the nails in the coffin and iron in the shovel that dug his grave were imported from Pittsburg. When buried, he wore a New York coat, shoes from Boston, breeches from Chicago, and a shirt from St. Louis. The South didn't furnish a thing on the earth for that funeral but the corpse and the hole in the ground.

Fortunately, times and attitudes have changed. The past half century has brought to Southerners the realization of the over-emphasis which has been placed on high returns per acre at the expense of low returns per man hour. This, with advancing automation has had a cumulative effect of producing more and more under-employed farm or rural labor. Today still, the trend is toward fewer but larger, large farms and fewer and smaller, small farms. For every mature farm boy or girl needed to replace farm adults, two are available. A further point is the fact that one farmer in 1820 could produce products for 5 consumers, in 1940 for 10, in 1955 for 20, and today for 26.

Displacement of farm labor and the growing need for industrial labor are seemingly problems which can solve each other. No long ago, agricultural economists at a Southern college predicted that farming within a 15 mile radius of a near-by town could be carried on - and improved - with some 10,000 fewer workers than were then present on the farms in that area. A large chemical company heard the figures, checked them, and shortly erected a plant near that town to employ 6,000. Not only has the plant operated successfully since, but the country about it has experienced new development - new and better conveniences, new churches, revitalized schools and improved homes.

Larger, specialized, and more efficient farms practicing a diverse agricultutal program of an increasing livestock industry, increased utilization of forests, and development of new crop farms such as fruits and vegetables seem to evidently be in the South's near future. Increasing rural industry and manufacturing with uncrowded, non-slum area labor pools of socially and civic-minded persons content and happy in their rural surroundings also seem evident in cur-

rent trends. Related processing industries, transportation, trades and professions, and recreations along with manufacturing industries and more efficient agriculture can give the South the developing economy it needs. The secret to fullest development of Southern potential, economically and culturally, will be found in full employment under conditions which preserve and develop the best farming practices and the highest type of community life. This may involve some long range plans to provide for the orderly development of our countryside and to prevent costly rural slums in the future.

* * *

The author is indebted to Dr. G. H. Aull, Head of Department of Agricultural Economics and Rural Sociology, for many ideas expressed in this article.

TALL CORN

Young man, don't start worrying about finding your station in life. Somebody is sure to tell you exactly where to get off.

-Farm Journal

Ag. Econ. Prof. - "Eddie, what is a deficit?"

Eddie- "It's what you've got when you haven't got as much as when you had nothing."

COSTLY: Eddie- "Say, what's a buccaneer?"
Freddie- "I'm not sure, but I'd say it's an awful high price to pay for an ear of corn."

Then there's the story of the bow-legged cowgirl who couldn't get her calves together.

The city boy picked up a cockle burr. "Look," he exclaimed, "I've found a porcupine egg!"

Country Constable - "Pardon, miss, but swimming is not allowed in the lake."

City Flapper - "Why didn't you tell me before I undressed?"

Country Constable- "Well, there ain't no law against undressing."

"You down there! "shouted her father from the top of the stairs, "Do you think you can stay all night?"

"Er-er thank you," replied the young lover, "but I'll have to phone home first."

On the whole it is nice to be a gentleman, but it's an awful handicap in an argument.

-Farm Journal

This Spring Semester, 1963, issue of THE AGRARIAN is sponsored by

AMERICAN HUMATES, INC.

manufacturers of fertilizer materials. (See page 13 for results of Clemson research on the effect of humate vs. inorganic fertilizer on sweet potato yield). The staff of THE AGRARIAN wishes to express thanks, in behalf of Clemson Agricultural Students, to American Humates for its generous support and genuine interest in our agricultural publication.

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